

Appendix 1:

Office Action mailed 5/31/01 as part of prosecution of the grandparent application – ser. no. 09/292,081, filed 4/14/99 and issued as U.S. Pat. No. 6,423,380.



UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

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Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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39/292-081

08/14/97

COURTINA

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95-0073.02

IMSE. 08/14/97
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08/14/97

RECEIVED

EXAMINER

BARRELL

ART UNIT

PAPER NUMBER

1762

DATE MAILED:

05/01/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No. 07/391,451

Applicant(s) 3M Corp.

Examiner 600

Group Art Unit 263

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 2/18/01
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 111; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1, 8-30 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1, 7-30 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
 - ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments and amendments filed 5/18/01 have been fully considered by the examiner. In light of the amendments and arguments, the rejections made in the previous office action have been withdrawn by the examiner. Claims 1 and 8-30 are pending.

The applicant's arguments are moot in light of the withdraw of the previous grounds of rejection. A new grounds of rejection follows.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 12-16 are rejected under 35 U.S.C. 102(b) as being anticipated by the examiner's own experience.

Claims 12-16 reads on a simple and everyday procedure such as spray painting graffiti lines or design on a circular surface, such as a trash can lid. The claims read on using spray paint

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to provide a picture of the sun, include sun rays, or a pinwheel, on a can lid. The action of the spray paint can to provide such pictures reads on the claimed process. This rejection is merely provided to illustrate the wide breadth of the claims.

4. Claims 1, 8-11, 21-22, and 25-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Adams.

Adams teaches dispensing a resist onto a spinning wafer, supported by a chuck, where the dispensing nozzle starts dispensing at the peripheral edge of the wafer and move radially towards the center, where dispensing ends either at the center or just after the center (Col. 3, lines 3-55). Both instances are taught in Adams. The nozzle movement and dispensing of Adams reads on the claimed movement and dispensing required by the applicant.

Claim Rejections - 35 USC § 103

5. The following⁴ is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 12, 14-20, 23-24, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams in view of Samuels.

Adams is applied here for the same reasons as given above. Adams does not teach that the dispensing is a spraying operation. Samuels is applied here for the same reasons as given in

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the previous office action. Samuels teaches a process and apparatus for spraying a resist to a spinning wafer with a moving nozzle (Abstract; Fig. 2). It would have been obvious to one skilled in the art to spray the resist, as the dispensing operation of Adams, with the expectation of providing the desired resist deposition on the spinning wafer, since it is shown by Samuels that spraying is a well known and conventional method of applying a resist to a spinning wafer with a moving nozzle.

Adams does not teach moving the nozzle over the entire diameter of the wafer. However, Samuels shows that application of the resists while moving over the entire diameter of the wafer is well established in the art, as presented in the previous office action. Therefore, it would have been obvious to modify the Adams dispensing process by moving the nozzle across the entire diameter, instead of just one radius, with the expectation of achieving the desired resist deposition, since it is shown by Samuels that such nozzle movement characteristic is a well known and conventional method of applying a resist to a spinning wafer with a moving nozzle.

Samuels does not explicitly teach an atomizer and that the spray is a mist. However, as admitted by the applicant in the specification, it is conventional to apply the solution as a mist in spin coating operations (Pg. 2, lines 3-6 of the specification), which is conventionally done by atomizing nozzles. Samuels' spraying is generic to a mist. Thus, it would have been obvious to one skilled in the art to apply the resist of Adams as a spray mist, since it is conventional in the art to do so and still expect to achieve the desired results.

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7. Claims 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams in view of Samuels and Konishi et al.

Adams and Samuels are applied here for the same reasons as given above. Adams and Samuels do not teach that the wafer site extends beyond the chuck. However, it is well established in the wafer spin coating art to configure the wafer and chuck such that the wafer site extends beyond the chuck, as seen in the wafer spin coating operation of Konishi et al. (See Fig. 2). It would have been obvious to one skilled in the art to modify Adams and Samuels, such that the wafer site extends beyond the chuck, with the expectation of providing the desired resist deposition results, since it is shown by Konishi et al. that such wafer and chuck configuration is well known and conventional in the wafer spin coating art.

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Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exmr. Michael Barr whose telephone number is (703)305-7919. The fax number for official after-final faxes for the examiner is (703)305-3599. The fax number for all other official faxes for the examiner is (703)305-5408. The fax number for all unofficial faxes for the examiner is (703)305-6078.

A handwritten signature in black ink, appearing to read 'Michael Barr', with a long horizontal flourish extending to the right.

Michael Barr
Examiner
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MB

May 30, 2001